

IN THE CLAIMS:

Claim 1. **(Not entered)**

Claim 2. **(Not entered)**

Claim 3. **(Not entered)**

Claim 4. **(Not entered)**

Claim 5. **(Previously Presented)** A liquid crystal display module, comprising:

a liquid crystal display panel having a plurality of scanning lines parallel to a first side of the liquid crystal display panel;

a driving circuit unit for generating a first scanning control signal and a second scanning control signal;

a first scanning unit, comprising:

a first scanning circuit board, coupled to the driving circuit unit, for receiving the first scanning control signal; and

a plurality of first scan drivers, coupled between the first scanning circuit board and a second side of the liquid crystal display panel, for sequentially scanning the scanning lines according to the first scanning control signal; and a second scanning unit having the same layout as the first scanning unit, comprising:

a second scanning circuit board, coupled to the driving circuit unit, for receiving the second scanning control signal; and

a plurality of second scan drivers, coupled to the second scanning circuit board and a third side of the liquid crystal display panel opposite to the second side of the liquid crystal panel, for sequentially scanning the scanning lines according to the second scanning control signal;

wherein the first scanning unit and the second scanning unit drive one of the scanning lines simultaneously; the first scanning circuit board is the same as the second scanning circuit board; the first scanning circuit board is connected to the first scan drivers with a first side; the second scanning circuit board is connected to the second scan drivers with a second side opposite to the first side; and the scanning of the first scan drivers and the scanning of the second scan drivers are in reverse order.

Claim 6. **(Not Entered)**

Claim 7. **(Not Entered)**

Claim 8. **(Previously Presented)** A liquid crystal display module, comprising:

a liquid crystal display panel having a plurality of scanning lines parallel to a first side of the liquid crystal display panel;

a driving circuit unit for generating a first scanning control signal and a second scanning control signal;

a first scanning unit, coupled to the driving circuit unit and a second side of the liquid crystal display panel adjacent to the first side of the liquid crystal display panel, for receiving the first scanning control signal and sequentially driving each of the scanning lines in the liquid crystal display panel; and

a second scanning unit having the same layout as the first scanning unit, coupled to the driving circuit unit and a third side of the liquid crystal display panel opposite to the second side of the liquid crystal display panel, for receiving the second scanning control signal and sequentially driving each of the scanning lines in the liquid crystal display panel;

wherein the first scanning unit and the second scanning unit drive one of the scanning lines simultaneously; the first scanning control signal includes a first data-shifting direction signal and the second control signal includes a second data-shifting direction signal; and the first data-shifting direction signal of the first scanning control signal and the second data-shifting direction signal of the second scanning control signal represent the reverse shifting directions.

Claim 9. **(Not Entered)**

Claim 10. **(Not Entered)**

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Claim 11. **(Previously Presented)** A liquid crystal display module, comprising:

- a liquid crystal display panel having a plurality of scanning lines parallel to a first side of the liquid crystal display panel;
- a driving circuit unit for generating a first scanning control signal and a second scanning control signal;
- a first scanning unit, comprising:
 - a first scanning circuit board, coupled to the driving circuit unit, for receiving the first scanning control signal; and
 - a plurality of first scan drivers, coupled between the first scanning circuit board and a second side of the liquid crystal display panel, for sequentially scanning the scanning lines according to the first scanning control signal; and
- a second scanning unit having the same layout as the first scanning unit, comprising:
 - a second scanning circuit board, coupled to the driving circuit unit, for receiving the second scanning control signal; and

a plurality of second scan drivers, coupled to the second scanning circuit board and a third side of the liquid crystal display panel opposite to the second side of the liquid crystal panel, for sequentially scanning the scanning lines according to the second scanning control signal;

wherein the first scanning unit and the second scanning unit drive one of the scanning lines simultaneously; the first scanning circuit board is the same as the second scanning circuit board; each scanning circuit board, located in a liquid crystal display module with a liquid crystal display panel, for connecting with a plurality of scanning drivers to scan a plurality of scanning lines extending from a first side of the liquid crystal display panel to a second side of the liquid crystal display panel, comprising:

a connector for connecting with an external connector and receiving a scanning control signal;

a first scanning interface, located at a first side of the scanning circuit board, for transferring the scanning control signal to the scan drivers connected with the first scanning interface and driving each of the scanning lines from the first side of the liquid crystal display panel;

a second scanning interface, located at a second side of the scanning circuit board opposite to the first side of the scanning circuit board, for transferring the scanning control signal to the scan drivers connected with the second scanning interface and driving each of the scanning lines from the second side of the liquid crystal display panel; and

an on-board circuit, for sending the scanning control signal received to the first or second scanning interfaces;

wherein the scanning control signal contains a data-shifting direction signal; and the data-shifting direction signal sent to the first scanning interface and the second scanning interface represent reverse shifting directions.

Claim 12. (New) A liquid crystal display module, comprising:

a liquid crystal display panel having a plurality of scanning lines parallel to a first side of the liquid crystal display panel;

a driving circuit unit for generating a first scanning control signal and a second scanning control signal, wherein each of the first and second scanning control signal comprises a backward scanning signal, a forward scanning signal and a ground signal;

a first scanning unit, comprising:

a first scanning circuit board, coupled to the driving circuit unit, for receiving the first scanning control signal, having first signal lines respectively for the backward scanning signal, forward scanning signal and ground signal, wherein the first signal line for the forward scanning signal traces toward a first side of the first scanning circuit board, the first signal line for the backward scanning signal traces toward a second side opposite to the first side of the first scanning circuit board and the first signal line for the ground signal traces toward both the first and second side of the first scanning circuit board; and

a plurality of first scan drivers, coupled between the first scanning circuit board and a second side of the liquid crystal display panel, for sequentially scanning the scanning lines according to the first scanning control signal; and

a second scanning unit having the same layout as the first scanning unit, comprising:

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a second scanning circuit board, coupled to the driving circuit unit, for receiving the second scanning control signal, having second signal lines respectively for the backward scanning signal, forward scanning signal and ground signal, wherein the second signal line for the forward scanning signal traces toward a first side of the second scanning circuit board, the second signal line for the backward scanning signal traces toward a second side opposite to the first side of the second scanning circuit board and the second signal line for the ground signal traces toward both the first and second side of the second scanning circuit board; and

a plurality of second scan drivers, coupled to the second scanning circuit board and a third side of the liquid crystal display panel opposite to the second side of the liquid crystal panel, for sequentially scanning the scanning lines according to the second scanning control signal;

wherein the first scanning unit and the second scanning unit drive one of the scanning lines simultaneously; the first scanning circuit board is connected to the first scan drivers with a first side; the second scanning circuit board is connected to the second scan drivers with a second side opposite to the first side; and the scanning of the first scan drivers and the scanning of the second scan drivers are in reverse order.

Claim 13. **(New)** The liquid crystal display module as recited in claim 5, wherein the first scan drivers and the second scan drivers are integrated circuits in tape carrier packages.

Claim 14. **(New)** The liquid crystal display module as recited in claim 8, wherein the first scan drivers and the second scan drivers are integrated circuits in tape carrier packages.

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Claim 15. **(New)** The liquid crystal display module as recited in claim 11,
wherein the first scan drivers and the second scan drivers are integrated circuits in tape
carrier packages.

Claim 16. **(New)** The liquid crystal display module as recited in claim 12,
wherein the first scan drivers and the second scan drivers are integrated circuits in tape
carrier packages.
